DEPARTMENT OF THE ARMY
CHIEF OF ENGINEERS
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7 JUN 2018

SUBJECT: Seattle Harbor Navigation Improvement Project, Seattle, Washington

THE SECRETARY OF THE ARMY

1. I submit for transmission to Congress my report on deep draft navigation improvements for Seattle Harbor, Seattle, Washington. It is accompanied by the reports of the district and division engineers. These reports were completed under the authority of Section 216 of the Flood Control Act of 1970, Public Law 91-611, which authorizes the review of completed projects to recommend modifications to their structures or operation. Preconstruction, engineering and design activities, if funded, for the Seattle Harbor Navigation Improvement Project (SHNIP) will continue under same authority.

2. The reporting officers recommend a project that will contribute to the economic efficiency of commercial navigation. The National Economic Development (NED) Plan includes a channel project depth of -56 feet Mean Lower Low Water (MLLW). Based on Fiscal Year (FY) 2018 price levels, a 2.75-percent discount rate, and a 50-year period of analysis, the estimated project cost of the NED Plan is $52,996,000, with average annual benefits of $78,951,000; average annual cost of $12,002,000; net benefits of $66,949,000, and a benefit-to-cost ratio of 6.6. The non-federal sponsor, the Port of Seattle, subsequently requested a locally preferred plan (LPP) with a project depth of -57 feet MLLW. The LPP has positive net benefits and is economically justified. Based on FY 2018 price levels, the estimated project cost of the LPP Plan is $60,039,000, with average annual benefits of $79,408,000; average annual cost of $12,623,000; net benefits of $66,785,000, and a benefit-to-cost ratio of 6.3. In accordance with U.S. Army Corps of Engineers (Corps) policy, the LPP was submitted for consideration to the Assistant Secretary of the Army for Civil Works (ASA(CW)) and approved for consideration as the recommended plan on 11 December 2017. The recommended plan is the LPP and consists of the following navigation improvements (depths do not include overdepth):

a. West Waterway: Deepen the existing channel to an authorized project depth of -57 feet MLLW (6,109 feet long). Widen the approach reach to 700 feet wide (2,500 feet long). Maintain the inner reach width of 500 feet wide (3,609 feet long).

b. East Waterway: Deepen the existing channel to an authorized project depth of -57 feet MLLW. Widen the approach reach to 700 feet wide (1,200 feet long). Maintain the inner reach width of 500 feet wide (4,800 feet long). The 1,232 feet at the southern end of the East Waterway will have no change to its authorized width of 500 feet and authorized depth of -34 feet MLLW.

3. Under the least cost disposal option, approximately 754,000 cubic yards of dredged material would be placed in the Elliott Bay open water disposal site and approximately 171,000 cubic yards would be placed at an upland facility.

4. The recommended plan has been determined to be economically justified and environmentally acceptable. The recommended plan would not have any significant adverse effects; therefore, no compensatory mitigation measures would be required. The project location is included within a National Priorities List Site known as the Harbor Island NPL (or Superfund) Site. The U.S. Environmental Protection Agency (EPA) is the lead federal agency for the Harbor Island NPL Site pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. 9601–9675.

a. The West Waterway is one of the Operable Units (OU) of the Harbor Island NPL Site that is located within the area of the proposed SHNIP. A remedial action decision was issued by EPA in 2013 for this OU and an Explanation of Significant Differences in 2015, selecting a no further action remedy with monitoring. This EPA remedy selection decision was based on an assumed dredging depth of -30 feet MLLW and natural channel depth of an average of -50 feet MLLW, precluding the need for maintenance dredging in most cases. Limited sediment sampling did not indicate the need for remediation given the lack of planned dredging. If contamination is discovered during design or implementation of the SHNIP at a lower dredging depth, the Corps would coordinate closely with EPA to determine if additional CERCLA response actions are necessary, and if changes to planned disposal of the contaminated sediment would be required.

b. The EPA has not made a remedial action decision for the East Waterway OU located within the area of the proposed SHNIP. A remedial investigation for the East Waterway site indicates that a remedy will be required due to contaminated sediments in the East Waterway considering the planned dredging depth of the SHNIP. A feasibility study evaluating remedial alternatives is anticipated to be released by EPA in the spring of 2018, with a remedial action decision possible in 2019. Remedy implementation would require some years after that. Remedial alternatives will impact the quantity and condition of sediment that would need to be removed under the East Waterway project area, as well as the quantity and cost of disposal of contaminated sediments that cannot be disposed in open water.

5. Based on an October 2017 price level, the estimated project first cost of the LPP is $60,039,000. Total economic costs are estimated to be $332,373,000 (with contingency), which includes project first costs, interest during construction, local service facilities and aids to navigation. In accordance with the cost share provisions in Section 101(a) of the Water Resources Development Act (WRDA) of 1986, as amended (33 U.S.C. 2211(a)), the federal share of the project first cost of the LPP is estimated to be $28,785,000 and the non-federal share is estimated to be $31,254,000, which includes a 75% federal and 25% non-federal cost-share for general navigation features (GNF) not in excess of -50 MLLW, and a 50% federal and 50% non-federal cost share for GNF greater than -50 MLLW (as amended by Section 1111 of WRDA 2016). Costs in excess of the NED plan, $7,043,000, are 100% non-federal expense.

Additionally, costs associated with portions of berths at Terminals 5, 18, and 30 that overlap the federal channels are considered local service facilities (LSF) and have been adjusted as a 100% non-federal expense. The value of lands, easements, relocations, and rights of way (LERRs) is 100% non-federal and is estimated to be $2,506,000. Costs are further adjusted to reflect a non-federal expense of 10% of GNF paid over 30 years for the NED plan, less credit for LERRs, or $2,543,000; this brings cost share of the LPP first costs to $26,242,000 federal and $33,797,000 non-federal. The construction schedule for the East Waterway component of the project will be impacted by the cleanup of contaminated sediments at the East Waterway of the Harbor Island NPL Site. Construction of GNF in will not commence until all remediation of the NPL Site has been completed, as determined by the EPA. Costs for upland disposal of contaminated sediments at a permitted waste disposal facility would be a non-federal expense.

6. The recommended plan was developed in coordination and consultation with federal, state, and local agencies and numerous tribes. Risk and uncertainty were addressed during the study by completing a cost and schedule risk analysis and a sensitivity analysis that evaluated the potential impacts of a change in economic assumptions. Risk includes project scope, schedule, and cost changes for the East Waterway associated with the impact of a future decision by the EPA on a remedial action for this part of the project.

7. In accordance with Corps guidance on the review of decision documents, all technical, engineering and scientific work underwent an open, dynamic and rigorous review process to ensure technical quality. This includes a District Quality Control review, an Agency Technical Review, an Independent External Peer Review (Type 1), and a Corps Headquarters policy and legal review. All comments from the above referenced reviews have been addressed and incorporated into the final documents.

8. Washington level review indicates that the plan recommended by the reporting officers is technically sound, environmentally and socially acceptable, and economically justified. The plan complies with all essential elements of the U.S. Water Resources Council's Economic and Environmental Principles and Guidelines for Water and Land Related Resources Implementation Studies. The recommended plan complies with other administration and legislative policies and guidelines. The views of interested parties including federal, state, and local agencies have been considered.

9. I recommend that the plan for navigation improvements for Seattle Harbor be authorized in accordance with the reporting officers' recommended plan at an October 2017 estimated project first cost of $60,039,000 with such modifications as in the discretion of the Chief of Engineers may be advisable. My recommendation is subject to cost sharing, financing, and other applicable requirements of federal and state laws and policies, including Section 101 of WRDA 1986, as amended (33 U.S.C. 2211), and to the non-federal sponsor agreeing, prior to project implementation, to perform the required items of local cooperation, including but not limited to the following:

a. Provide 25% of the total cost of construction of the GNFs attributable to dredging to a depth in excess of -20 MLLW but not in excess of -50 MLLW; plus 50% of the total cost of construction of the GNFs attributable to dredging to a depth in excess of -50 MLLW but not in excess of -56 MLLW; plus 100% of the total cost of construction of the GNFs attributable to dredging to a depth in excess of -56 MLLW as further specified below:

(1) Provide 50% of design costs allocated by the federal government to commercial navigation in accordance with the terms of a design agreement entered into prior to commencement of design work for the project;

(2) Provide, during the first year of construction, any additional funds necessary to pay the full non-federal share of design costs allocated by the federal government to commercial navigation;

(3) Provide, during construction, any additional funds necessary to make its total contribution for commercial navigation equal to 25% of the total cost of construction of the GNFs attributable to dredging to a depth in excess of -20 MLLW but not in excess of -50 MLLW; plus 50% of the total cost of construction of the GNFs attributable to dredging to a depth in excess of -50 MLLW but not in excess of -56 MLLW; plus 100% % of the total cost of construction of the GNFs attributable to dredging to a depth in excess of -56 MLLW; plus 100% of the total cost of upland disposal of contaminated sediments in a permitted waste disposal facility;

b. Provide all lands, easement, and rights-of-way (LER), including those necessary for the borrowing of material and disposal of dredged or excavated material, and perform or assure the performance of all relocations, including utility relocations, all as determined by the federal government to be necessary for the construction or operation and maintenance of the GNFs;

c. Pay with interest, over a period not to exceed 30 years following completion of the period of construction of the GNFs, an additional amount equal to 10% of the total cost of construction of GNFs less the amount of credit afforded by the federal government for the value of the LER and relocations, including utility relocations, provided by the non-federal sponsor for the GNFs. If the amount of credit afforded by the federal government for the value of LER and relocations, including utility relocations, provided by the non-federal sponsor equals or exceeds 10% of the total cost of construction of the GNFs, the non-federal sponsor shall not be required to make any contribution under this paragraph, nor shall it be entitled to any refund for the value of LER and relocations, including utility relocations, in excess of 10% of the total costs of construction of the GNFs;

d. Provide, operate, and maintain, at no cost to the federal government, the local service facilities in a manner compatible with the project's authorized purposes and in accordance with applicable federal and state laws and regulations and any specific directions prescribed by the government;

e. Provide 50% of the excess cost of operation and maintenance of the project over that cost which the federal government determines would be incurred for operation and maintenance if the project had a depth of -50 MLLW; plus 100% of the excess cost of operation and maintenance of the project over that cost which the federal government determines would be incurred for operation and maintenance if the project had a depth of -56 MLLW;

f. Give the federal government a right to enter, at reasonable times and in a reasonable manner, upon property that the non-federal sponsor owns or controls for access to the project for the purpose of completing, inspecting, operating and maintaining the GNFs;

g. Hold and save the United States free from all damages arising from the construction or operation and maintenance of the project, any betterments, and the local service facilities, except for damages due to the fault or negligence of the United States or its contractors;

h. Keep and maintain books, records, documents, or other evidence pertaining to costs and expenses for a minimum of three years after the final accounting and assure that such materials are reasonably available for examination, audit, or reproduction by the government;

i. Perform, or ensure performance of, any investigations for hazardous substances as are determined necessary to identify the existence and extent of any hazardous substances regulated under the CERCLA that may exist in, on, or under LER that the federal government determines to be necessary for the construction or operation and maintenance of the GNFs. However, for lands, easements, or rights-of-way that the federal government determines to be subject to the navigation servitude, only the federal government shall perform such investigation unless the Government provides the non-federal sponsor with prior specific written direction, in which case the non-federal sponsor shall perform such investigations in accordance with such written direction;

j. Assume complete financial responsibility, as between the federal government and the non-federal sponsor, for all necessary cleanup and response costs of any hazardous substances regulated under CERCLA that are located in, on, or under lands, easements, or rights-of-way required that the government determines to be necessary for the construction or operation and maintenance of the project;

k. Agree, as between the federal government and the non-federal sponsor, that the non-federal sponsor shall be considered the operator of the project for the purpose of CERCLA liability, and to the maximum extent practicable, perform its obligations in a manner that will not cause liability to arise under CERCLA;

l. Comply with Section 221 of the Flood Control Act of 1970, Public Law 91-611, as amended (42 U.S.C. 1962d-5b) and Section 101(e) of WRDA 1986, as amended (33 U.S.C. 2211(e)) which provides that the Secretary of the Army shall not commence the construction of any water resources project or separable element thereof, until the non-federal sponsor has

entered into a written agreement to furnish its required cooperation for the project or separable element;

m. Comply with the applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, PL 91-646, as amended, (42 U.S.C. 4601-4655) and the Uniform Regulations contained in 49 CFR 24, in acquiring lands, easements, and rights-of-way, necessary for construction, operation and maintenance of the project including those necessary for relocations, the borrowing of material, or the disposal of dredged or excavated material; and inform all affected persons of applicable benefits, policies, and procedures in connection with said act;

n. Comply with all requirements of applicable federal laws and implementing regulations, including, but not limited to: Section 601 of the Civil Rights Act of 1964 (42 U.S.C. 2000d), and Department of Defense Directive 5500.11 issued pursuant thereto; the Age Discrimination Act of 1975 (42 U.S.C. 6102); the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Army Regulation 600-7 issued pursuant thereto; and 40 U.S.C. 3141-3148 and 40 U.S.C. 3701-3708 (labor standards originally enacted as the Davis-Bacon Act, the Contract Work Hours and Safety Standards Act, and the Copeland Anti-Kickback Act);

o. Not use funds from other federal programs, including any non-federal contribution required as a matching share therefore, to meet any of the non-federal sponsor's obligations for the project costs unless the federal agency providing the federal portion of such funds verifies in writing that such funds are authorized to be used to carry out the project.

10. The recommendation contained herein reflects the information available at this time and current departmental policies governing the formulation of individual projects. It does not reflect program and budgeting priorities inherent in the formulation of the national civil works construction program or the perspective of higher levels within the executive branch. Consequently, the recommendations may be modified before they are transmitted to Congress for authorization and/or implementation funding. However, prior to transmittal to Congress, the state, interested federal agencies, and other parties will be advised of any significant modifications in the recommendations and will be afforded an opportunity to comment further.

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